

What is claimed is:

1. A lithium secondary battery comprising:
an electrode unit produced by winding or laminating a
positive electrode and a negative electrode via a separator,
and

a non-aqueous electrolytic solution containing a
lithium compound as an electrolyte,
wherein a cumulative concentration of water (H₂O) released
from both of said positive electrode and said negative
electrode in relation to the weight of said electrode unit,
exclusive of current collectors, is suppressed to 5,000 ppm
or lower in case of heating both electrodes at 25 to 200°C
and/or to 1,500 ppm or lower in case of heating said electrodes
at 200 to 300°C

2. The lithium secondary battery according to Claim 1,
wherein said lithium compound is lithium
hexafluorophosphate.

3. The lithium secondary battery according to Claim 1,
wherein a lithium manganese oxide containing lithium and
manganese as main components and having a cubic system spinel
structure is used as the positive electrode active substance.

4. The lithium secondary battery according to Claim 2,
wherein a lithium manganese oxide containing lithium and
manganese as main components and having a cubic system spinel
structure is used as the positive electrode active substance.

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- 5. The lithium secondary battery according to Claim 1, wherein a highly graphitized carbon fiber is used as the negative electrode active substance.
- 6. The lithium secondary battery according to Claim 2, wherein a highly graphitized carbon fiber is used as the negative electrode active substance.
- 7. The lithium secondary battery according to Claim 3, wherein a highly graphitized carbon fiber is used as the negative electrode active substance.
- 8. The lithium secondary battery according to Claim 1, which has a battery capacity of 2 Ah or more.
- 9. The lithium secondary battery according to Claim 2, which has a battery capacity of 2 Ah or more.
- 10. The lithium secondary battery according to Claim 3, which has a battery capacity of 2 Ah or more.
- 11. The lithium secondary battery according to Claim 4, which has a battery capacity of 2 Ah or more.
- 12. The lithium secondary battery according to Claim 1, which is used in an electric automobile or a hybrid electric automobile.
- 13. The lithium secondary battery according to Claim 2, which is used in an electric automobile or a hybrid electric automobile.
- 14. The lithium secondary battery according to Claim 3, which is used in an electric automobile or a hybrid electric automobile.

15. The lithium secondary battery according to Claim 4,
which is used in an electric automobile or a hybrid electric
automobile.

16. The lithium secondary battery according to Claim 5,
which is used in an electric automobile or a hybrid electric
automobile.

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